

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method of operating a client node in wireless network, comprising:

transitioning from a lower-power state to a higher-power state; and
transmitting, in response to the transitioning, a wakeup notification message to a supporter node, the supporter node being responsive to the wakeup notification message to determine whether or not data is buffered for the client node,[[;]] and
wherein when there is data buffered for the client node, the method comprises receiving the buffered data, if any, until a packet is received from the supporter node indicating no more of the buffered data is available, and

wherein when there is no data buffered for the client node, the method comprises receiving a packet from the supporter node indicating no buffered data is available.

2. (Currently Amended) The method as claimed in claim 4 [[1]], wherein the wakeup notification message is ~~a power save poll~~ transmitted periodically to the supporter node.

3. (Currently Amended) The method as claimed in claim 1, wherein the ~~wakeup notification message is transmitted periodically to the supporter node~~ transitioning from the lower-power state to the higher-power state and the transmitting the wakeup notification message are performed independently of beacon transmissions by the supporter node.

4. (Currently Amended) The method as claimed in claim 3 [[1]], further comprising transitioning back to the lower-power state after receipt of the packet from the supporter node indicating no more of the buffered data is available or receipt of the packet from the supporter node indicating no data is available ~~wherein the wakeup~~

~~notification message is transmitted periodically to the supporter node at a time determined by a client node.~~

5. (Currently Amended) The method as claimed in claim 6 [[1]], ~~wherein the wakeup notification message is transmitted periodically to the supporter node at a time determined by the supporter node~~ further comprising transitioning to one of a plurality of power saving states depending on a time-interval between the periodic transmissions of the wakeup notification message,

wherein the client node transitions to a lower-power state for a longer time-interval, and transitions to a higher-power state for a shorter time-interval.

6. (Currently Amended) The method as claimed in claim 3 [[1]], wherein the wakeup notification message is transmitted periodically to the supporter node, and

wherein the method further comprising refraining from transmitting a next of the periodic transmissions of the wakeup notification message when the client node is currently receiving the buffered data from ~~wherein said transmitting does not occur in the event the supporter node is transmitting at a time of an expected wakeup notification message.~~

7. (Currently Amended) A method of operating a supporter node in a wireless network, comprising:

buffering data for a client node when the client node is in a lower-power state;
receiving a wakeup notification message transmitted from [[a]] the client node indicating that the client node has transitioned from the lower-power state to a higher-power state;

in response to the receipt of the wakeup notification message, either transmitting the buffered data, if any, to the client node when there is buffered data for the client node or; and transmitting a packet to the client node indicating no data is available for the client node when there is no buffered data for the client node.

8. (Currently Amended) A method as claimed in claim ~~[[7]]~~ 10, wherein the wakeup notification message is ~~a power-save poll~~ transmitted periodically to the supporter node by the client node.

9. (Currently Amended) A method as claimed in claim 7, wherein ~~the wakeup notification message is received periodically from the client node~~ transitions from the lower-power state to the higher-power state and transmits the wakeup notification message independent of beacon transmissions by the supporter node.

10. (Currently Amended) A method as claimed in claim ~~[[7]]~~ 9, wherein ~~the wakeup notification message is received from the client node at a time determined by the client node~~ transitions back to the lower-power state after receipt of the buffered data from the supporter node or after receipt of the packet from the supporter node indicating no data is available.

11. (Currently Amended) A method as claimed in claim ~~[[7]]~~ 12, wherein ~~the wakeup notification message is received from the client node at time determined by a supporter node~~ the client node transitions to one of a plurality of power saving states depending on a time-interval between the periodic transmissions of the wakeup notification message by the supporter node, and

wherein the client node transitions to a lower-power state for a longer time-interval, and transitions to a higher-power state for a shorter time-interval.

12. (Currently Amended) A method as claimed in claim ~~[[7]]~~ 9, wherein ~~said receiving does not occur in the event said transmitting data occurs at a time of an expected wakeup notification message~~ wherein the wakeup notification message is transmitted periodically by the client node to the supporter node, and

wherein the client node refrains from transmitting a next of the periodic transmissions of the wakeup notification message when the client node is currently

receiving the buffered data from wherein said transmitting does not occur in the event the supporter node is transmitting at a time of an expected wakeup notification message.

Claims 13-20. (Canceled)

21. (Currently Amended) A client node ~~An apparatus~~, comprising:
a wireless local area network interface, ~~wherein said wireless local area network interface includes~~ comprising a transceiver to transmit a wakeup notification message to a supporter node in response to a transition from a lower-power state to a higher power state, the transceiver and to receive data from the supporter node when there is buffered data for the client node, if any, until a packet is received from the supporter node indicating no more of the buffered data is available,

wherein when there is no data buffered for the client node at the supporter node, the interface is to receive a packet from the supporter node indicating no buffered data is available.

22. (Currently Amended) The client node of ~~An apparatus as claimed in claim 21~~ [[21]], wherein ~~the transceiver does not transmit a wakeup notification message to the supporter node in the event the supporter node is transmitting data at a time of an expected wakeup notification message~~ the client node transitions back to the lower-power state after receipt of the packet from the supporter node indicating no more of the buffered data is available or after receipt of the packet from the supporter node indicating no data is available.

23. (Currently Amended) The client node of claim 21, wherein the wireless local area network interface enters [[a]] the lower-power mode state after receiving the packet from the supporter node indicating that no ~~not~~ data is available, and

wherein the client node transitions from the lower-power state to the higher-power state and transmits the wakeup notification message independent of beacon transmissions by the supporter node.

24. (Currently Amended) A supporter node ~~An apparatus~~, comprising:
a wireless local area network interface, ~~wherein said interface includes~~
comprising a transceiver to receive a wakeup notification message from a client node and
to transmit buffered data, if any, to the client node when there is buffered data available
for the client node and to transmit a packet to the client node indicating no data is
available when there is no data buffered for the client node,
wherein the wakeup notification message indicates that the client node has
transitioned from a lower-power state to a higher-power state.

25. (Currently Amended) A supporter node ~~An apparatus~~ as claimed in claim 24,
further comprising a buffer memory to store the buffered data for the client node while
the client node is in the lower-power state until transmitted upon the transceiver receiving
a wakeup notification message from the client node,
wherein the client node transitions back to the lower-power state after receipt of
the buffered data from the supporter node or after receipt of the packet from the supporter
node indicating no data is available, and
wherein the client node transitions from the lower-power state to the higher-
power state and transmits the wakeup notification message independent of beacon
transmissions by the supporter node.

26. (Currently Amended) A supporter node system ~~An apparatus~~, comprising:
an omnidirectional antenna; and
a wireless local area network interface to couple to said omnidirectional antenna,
wherein said interface includes a transceiver to receive a wakeup notification message
from a client node and to transmit buffered data, if any, to the client node when there is
buffered data available for the client node and to transmit a packet to the client node
indicating no data is available when there is no data buffered for the client node,
wherein the wakeup notification message indicates that the client node has
transitioned from a lower-power state to a higher-power state.

27. (Currently Amended The supporter node system of ~~An apparatus as claimed~~ in claim 26, further comprising a buffer memory to store the buffered data for the client node while the client node is in the lower-power state ~~until transmitted upon the transceiver receiving a wakeup notification message from the client node,~~

wherein the client node transitions back to the lower-power state after receipt of the buffered data from a supporter node or after receipt of the packet from the supporter node indicating no data is available, and

wherein the client node transitions from the lower-power state to the higher-power state and transmits the wakeup notification message independently of beacon transmissions by the supporter node.

28. (New) The method as claimed in claim 3 wherein the client node uses two or more antennas implementing spatial diversity to receive the buffered data from the supporter node.

29. (New) The method as claimed in claim 3 further comprising receiving a power save message from the supporter node in response to the wakeup notification message, the power save message instructing the client node to transition back to the lower-power state when the supporter node is servicing one or more other client nodes and is unable to transmit buffered data to the client node.

30. (New) The method as claimed in claim 29 wherein the power save message indicates a time in the future when the client node is to transmit another wakeup notification message to possibly receive buffered data, and

wherein the supporter node estimates a duration to complete the services of the one or more other client nodes to determine the time in the future.

31. (New) The method as claimed in claim 9 wherein the client node uses two or more antennas implementing spatial diversity to receive the buffered data from the supporter node.

32. (New) The method as claimed in claim 9 further comprising transmitting a power save message to the client node in response to the wakeup notification message, the power save message instructing the client node to transition back to the lower-power state when the supporter node is servicing one or more other client nodes and is unable to transmit buffered data to the client node.

33. (New) The method as claimed in claim 32 wherein the power save message indicates a time in the future when the client node is to transmit another wakeup notification message to possibly receive buffered data, and

wherein the method further comprises the supporter node estimating a duration to complete the services of the one or more other client nodes to determine the time in the future.

34. (New) The client node as claimed in claim 23 further comprising two or more antennas coupled to the interface to implement spatial diversity to receive the buffered data from the supporter node.

35. (New) The client node as claimed in claim 23 wherein the interface receives a power save message from the supporter node in response to the wakeup notification message, the power save message instructing the client node to transition back to the lower-power state when the supporter node is servicing one or more other client nodes and is unable to transmit buffered data to the client node.

36. (New) The client node as claimed in claim 25 wherein the power save message indicates a time in the future when the client node is to transmit another wakeup notification message to possibly receive buffered data, and

wherein the supporter node estimates a duration to complete the services of the one or more other client nodes to determine the time in the future.

37. (New) The supporter node of claim 25 wherein the client node uses two or more antennas implementing spatial diversity to receive the buffered data from the supporter node.

38. (New) The supporter node of claim 25 wherein the transceiver transmits a power save message to the client node in response to the wakeup notification message, the power save message instructing the client node to transition back to the lower-power state when the supporter node is servicing one or more other client nodes and is unable to transmit buffered data to the client node.

39. (New) The supporter node of claim 38 wherein the power save message indicates a time in the future when the client node is to transmit another wakeup notification message to possibly receive buffered data, and

wherein the supporter node estimating a duration to complete the services of the one or more other client nodes to determine the time in the future.